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Filing Date: November 14, 2000

Title: Method and Apparatus for Using Atrial Discrimination Algorithms to Determine Optimal Pacing Therapy and Therapy Timing

REMARKS

Applicant has reviewed the Office Action dated July 12, 2002, and the references cited therewith.

Claims 1, 3 - 30, 34, 39 - 42, 44, 51 - 53 are amended, claims 2 and 32 are cancelled, and claim 62 is added; as a result, claims 1, 3 - 31 and 33 - 62 are now pending in this application.

Claims 1, 3 - 9, 12 - 19 and 22 - 29 have been amended to remove the "steps of" language. The independent claims have been amended to remove the "(a)", "(b)", "(c)", etc. references. Claims 9 - 11, 14 - 15, 20 - 21, 24, 34, 39 - 41, 44 and 51 have been amended to replace "an other" and "the other" with --a second-- and --the second--, respectively. Applicant believes that these amendments clarify the claimed subject matter. These amendments are not intended to narrow the claims, and are not made to overcome any prior art.

Rejection Under 35 U.S.C. § 112

In the Office Action, claim 42 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 42 has been amended to replace "lease" with --least--, merely a typographical correction. Applicant respectfully requests withdrawal of the 35 U.S.C. 112, second paragraph, rejection, and reconsideration and allowance of claim 42.

Rejections Under 35 U.S.C. § 102

In the Office Action, claims 1 - 61 were rejected under 35 U.S.C. § 102(b) as being anticipated by Gillberg et al. (U.S. Patent No. 5,755,736).

Applicant amended claim 1 to better recite the present subject matter. Support for the amendment is believed to be found at least at Page 4 lines 11 - 27 and at Page 11 line 23 to Page 12 line 20 of the Specification. Regarding amended independent claim 1, Applicant is unable to find, among other things, in the cited portions of the Gillberg et al. reference, discrimination criteria for distinguishing at least two different types of regular rapid supraventricular heart rates, and the controlled pacing of the heart corresponding to the identified type of supraventricular tachycardia, as recited in claim 1. Claim 2 has been cancelled in view of amended claim 1.

AMENDMENT AND RESPONSE

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Claims 3 - 13 depend on amended independent claim 1, and are believed to be patentable at least for the reasons provided with respect to claim 1.

Applicant amended claim 14 to better recite the present subject matter. Support for the amendment is believed to be found at least at Page 4 lines 11 - 27 and at Page 11 line 23 to Page 12 line 20 of the Specification. Regarding amended independent claim 14, Applicant is unable to find, among other things, in the cited portions of the Gillberg et al. reference, discrimination criteria for distinguishing regular rapid supraventricular heart rates including fast atrial flutter and a slower rate supraventricular tachycardia, and providing atrial antitachycardia pacing for a slower rate supraventricular tachycardia and providing a second type of pacing control for a fast atrial flutter, as recited in claim 14. Claims 15 - 21 depend on amended independent claim 14, and are believed to be patentable at least for the reasons provided with respect to claim 14.

Applicant amended claim 22 to better recite the present subject matter. Support for the amendment is believed to be found at least at Page 4 lines 11 - 27 and at Page 11 line 23 to Page 12 line 20 of the Specification. Regarding amended independent claim 22, Applicant is unable:to find, among other things, in the cited portions of the Gillberg et al. reference, discrimination criteria for distinguishing different types of rapid regular supraventricular tachycardia, the identification of the type of rapid regular supraventricular tachycardia occurring, and the provided indication corresponding to the identified type of rapid regular supraventricular tachycardia, as recited in claim 22. Claims 23 - 29 depend on amended independent claim 22, and are believed to be patentable at least for the reasons provided with respect to claim 22.

Applicant amended claim 30 to better recite the present subject matter. Support for the amendment is believed to be found at least at Page 4 lines 11 - 27 and at Page 11 line 23 to Page 12 line 20 of the Specification. Regarding amended independent claim 30, Applicant is unable to find, among other things, in the cited portions of the Gillberg et al. reference, a cardiac pacing device that includes a processor for distinguishing different types of regular supraventricular tachycardia to identify the type of regular supraventricular tachycardia occurring and for controlling the pacer to provide pacing pulses to the heart in a manner corresponding to the type of regular supraventricular tachycardia, as recited in the claim. Claim 32 has been cancelled in view of amended claim 30. Claims 31 and 33 - 43 depend on amended independent claim 30, and are

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believed to be patentable at least for the reasons provided with respect to claim 30.

Applicant amended claim 44 to better recite the present subject matter. Support for the amendment is believed to be found at least at Page 4 lines 11 - 27 and at Page 11 line 23 to Page 12 line 20 of the Specification. Regarding amended independent claim 44, Applicant is unable to find, among other things, in the cited portions of the Gillberg et al. reference, a cardiac pacing device that includes a processor for distinguishing fast atrial flutter and a slower rate supraventricular tachycardia and for controlling the pacer to provide atrial antitachycardia pacing to the heart for a slower rate supraventricular tachycardia and to provide a second type of pacing for a fast atrial flutter, as recited in the claim. Claims 45 - 52 depend on amended independent claim 44, and are believed to be patentable at least for the reasons provided with respect to claim 44.

Applicant amended claim 53 to better recite the present subject matter. Support for the amendment is believed to be found at least at Page 4 lines 11 - 27 and at Page 11 line 23 to Page 12 line 20 of the Specification. Regarding amended independent claim 53, Applicant is unable to find, among other things, in the cited portions of the Gillberg et al. reference, cardiac pacing device that includes a processor for distinguishing different types of rapid regular supraventricular tachycardia to the atrial activity signal, and for providing and indication corresponding to the type of rapid regular supraventricular tachycardia identified. Claims 54 - 61 depend on amended independent claim 44, and are believed to be patentable at least for the reasons provided with respect to claim 44.

Applicant respectfully requests withdrawal of the 35 U.S.C. § 102(b) rejection, and reconsideration and allowance of the claims.

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CONCLUSION

Claims 2 and 32 are canceled hereby. Claims 1, 3 - 30, 34, 39 - 42, 44, 51 - 53 are amended herein. Claim 62 is added hereby. Claims 1, 3 - 31 and 33 - 62 are now pending.

Please charge the fee of \$84.00 for adding an additional independent claim, and any additional fees deemed necessary, to Deposit Account No. 19-0743.

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612 373-6960) to facilitate prosecution of this application.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 2/1 day of October, 2002.

ONE 6 HANSON

Name

Signature